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CLAIMS

What is claimed is:

- 5 1. A polypeptide comprising a high mobility group box protein (HMGB) A box or variant thereof which can inhibit release of a proinflammatory cytokine from a cell treated with high mobility group box (HMGB) protein, wherein said HMGB A box is selected from the group consisting of an HMG1L5 A box, an HMG1L1 A box, an HMG1L4 A box, an HMGB A box polypeptide of BAC clone RP11-10 395A23, an HMG1L9 A box, an LOC122441 A box, an LOC139603 A box, and an HMG1L8 A box.
- 15 2. A polypeptide comprising a high mobility group box protein (HMGB) A box which can inhibit release of a proinflammatory cytokine from a cell treated with high mobility group box (HMGB) protein, wherein said HMGB A box is selected from the group consisting of an HMG1L5 A box, an HMG1L1 A box, an HMG1L4 A box, an HMGB A box polypeptide of BAC clone RP11-395A23, an HMG1L9 A box, an LOC122441 A box, an LOC139603 A box, and an HMG1L8 A box.
- 20 3. A polypeptide wherein the polypeptide is a high mobility group box protein (HMGB) A box biologically active fragment or variant thereof which can inhibit release of a proinflammatory cytokine from a cell treated with high mobility group box (HMGB) protein, wherein said HMGB A box biologically active fragment is selected from the group consisting of an HMG1L5 A box fragment, an HMG1L1 A box fragment, an HMG1L4 A box fragment, an HMGB A box polypeptide of BAC clone RP11-395A23 fragment, an HMG1L9 A box fragment, an LOC122441 A box fragment, an LOC139603 A box fragment, and an HMG1L8 A box fragment.

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4. A polypeptide wherein the polypeptide is a high mobility group box protein (HMGB) A box biologically active fragment which can inhibit release of a proinflammatory cytokine from a cell treated with high mobility group box (HMGB) protein, wherein said HMGB A box biologically active fragment is selected from the group consisting of an HMG1L5 A box fragment, an HMG1L1 A box fragment, an HMG1L4 A box fragment, an HMGB A box polypeptide fragment of BAC clone RP11-395A23, an HMG1L9 A box fragment, an LOC122441 A box fragment, an LOC139603 A box fragment, and an HMG1L8 A box fragment.
5. A composition comprising a polypeptide comprising a high mobility box protein (HMGB) A box or variant thereof which can inhibit release of a proinflammatory cytokine from a cell treated with high mobility group box (HMGB) protein in a pharmaceutically acceptable excipient, wherein said HMGB A box is selected from the group consisting of an HMG1L5 A box, an HMG1L1 A box, an HMG1L4 A box, an HMGB A box polypeptide of BAC clone RP11-395A23, an HMG1L9 A box, an LOC122441 A box, an LOC139603 A box, and an HMG1L8 A box.
6. A composition comprising a polypeptide comprising a high mobility box protein (HMGB) A box which can inhibit release of a proinflammatory cytokine from a cell treated with high mobility group box (HMGB) protein in a pharmaceutically acceptable excipient, wherein said HMGB A box is selected from the group consisting of an HMG1L5 A box, an HMG1L1 A box, an HMG1L4 A box, an HMGB A box polypeptide of BAC clone RP11-395A23, an HMG1L9 A box, an LOC122441 A box, an LOC139603 A box, and an HMG1L8 A box.
7. A composition comprising a polypeptide wherein the polypeptide is a high mobility group box protein (HMGB) A box biologically active fragment or variant thereof which can inhibit release of a proinflammatory cytokine from a

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cell treated with high mobility group box (HMGB) protein in a pharmaceutically acceptable excipient, wherein said HMGB A box biologically active fragment is selected from the group consisting of an HMG1L5 A box fragment, an HMG1L1 A box fragment, an HMG1L4 A box fragment, an HMGB A box polypeptide fragment of BAC clone RP11-395A23, an HMG1L9 A box fragment, an LOC122441 A box fragment, an LOC139603 A box fragment, and an HMG1L8 A box fragment.

8 A composition comprising a polypeptide wherein the polypeptide is a high mobility group box protein (HMGB) A box biologically active fragment which can inhibit release of a proinflammatory cytokine from a cell treated with high mobility group box (HMGB) protein in a pharmaceutically acceptable excipient, wherein said HMGB A box biologically active fragment is selected from the group consisting of an HMG1L5 A box fragment, an HMG1L1 A box fragment, an HMG1L4 A box fragment, an HMGB A box polypeptide fragment of BAC clone RP11-395A23, an HMG1L9 A box fragment, an LOC122441 A box fragment, an LOC139603 A box fragment, and an HMG1L8 A box fragment

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9. A purified preparation of antibodies that specifically bind to a high mobility group box protein (HMGB) B box but do not specifically bind to non-B box epitopes of HMGB, wherein said antibodies can inhibit release of a proinflammatory cytokine from a cell treated with HMGB, wherein said HMGB B box is selected from the group consisting of an HMG1L5 B box, an HMG1L1 B box, an HMG1L4 B box, and an HMGB B box polypeptide of BAC clone

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RP11-395A23

10. A polypeptide comprising a high mobility group box protein (HMGB) B box or variant thereof, but not comprising a full length HMGB, wherein said polypeptide can cause release of a proinflammatory cytokine from a cell, and wherein said HMGB B box is selected from the group consisting of an

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HMGI<sub>L</sub>5 B box, an HMGI<sub>L</sub>1 B box, an HMGI<sub>L</sub>4 B box, and an HMGB B box polypeptide of BAC clone RP11-395A23.

11. A polypeptide comprising a high mobility group box protein (HMGB) B box, but not comprising a full length HMGB, wherein said polypeptide can cause release of a proinflammatory cytokine from a cell, and wherein said HMGB B box is selected from the group consisting of an HMGI<sub>L</sub>5 B box, an HMGI<sub>L</sub>1 B box, an HMGI<sub>L</sub>4 B box, and an HMGB B box polypeptide of BAC clone RP11-395A23.
12. A polypeptide wherein the polypeptide is a high mobility group box protein (HMGB) B box biologically active fragment or variant thereof, wherein said HMGB B box biologically active fragment is selected from the group consisting of an HMGI<sub>L</sub>5 B box fragment, an HMGI<sub>L</sub>1 B box fragment, an HMGI<sub>L</sub>4 B box fragment, and an HMGB B box polypeptide fragment of BAC clone RP11-395A23
13. A polypeptide wherein the polypeptide is a high mobility group box protein (HMGB) B box biologically active fragment, wherein said HMGB B box biologically active fragment is selected from the group consisting of an HMGI<sub>L</sub>5 B box fragment, an HMGI<sub>L</sub>1 B box fragment, an HMGI<sub>L</sub>4 B box fragment, and an HMGB B box polypeptide fragment of BAC clone RP11-395A23.
14. A method of treating a condition in a patient characterized by activation of an inflammatory cytokine cascade, comprising administering to the patient a purified preparation of antibodies that specifically bind to a high mobility group box protein (HMGB) B box but do not specifically bind to non-B box epitopes of HMGB, in an amount sufficient to inhibit the inflammatory cytokine cascade, wherein said HMGB B box is selected from the group consisting of an

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HMG1L5 B box, an HMG1L1 B box, an HMG1L4 B box, and an HMGB B box polypeptide of BAC clone RP11-395A23.

15. A method of treating a condition in a patient characterized by activation of an inflammatory cytokine cascade, comprising administering to the patient a polypeptide comprising a high mobility group box protein (HMGB) A box or variant thereof which can inhibit release of a proinflammatory cytokine from a cell treated with high mobility group box (HMGB) protein in an amount sufficient to inhibit release of the proinflammatory cytokine from the cell.  
5 wherein said HMGB A box is selected from the group consisting of an HMG1L5 A box, an HMG1L1 A box, an HMG1L4 A box, an HMGB A box polypeptide of BAC clone RP11-395A23, an HMG1L9 A box, an LOC122441 B box, an LOC139603 A box, and an HMG1L8 A box.
- 15 16. A method of treating a condition in a patient characterized by activation of an inflammatory cytokine cascade, comprising administering to the patient a polypeptide, wherein said polypeptide is a high mobility group box protein (HMGB) A box biologically active fragment or variant thereof which can inhibit release of a proinflammatory cytokine from a cell treated with high mobility group box (HMGB) protein in an amount sufficient to inhibit release of the proinflammatory cytokine from the cell, wherein said HMGB A box is selected from the group consisting of an HMG1L5 A box, an HMG1L1 A box, an HMG1L4 A box, an HMGB A box polypeptide of BAC clone RP11-395A23 A box, an HMG1L9 A box, an LOC122441 B box, an LOC139603 A box, and an HMG1L8 A box.  
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17. A method for effecting weight loss or treating obesity in a patient, comprising administering to the patient an effective amount of a polypeptide comprising a high mobility group box protein (HMGB) B box or variant thereof, but not comprising a full length HMGB polypeptide, in an amount sufficient to  
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stimulate the release of a proinflammatory cytokine from a cell, wherein said HMGB B box is selected from the group consisting of an HMG1L5 B box, an HMG1L1 B box, an HMG1L4 B box, and an HMGB B box polypeptide of BAC clone RP11-395A23.

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18. A method for effecting weight loss or treating obesity in a patient comprising administering to the patient an effective amount of a polypeptide, wherein said polypeptide is a high mobility group box protein (HMGB) B box biologically active fragment or a variant thereof in an amount sufficient to stimulate the release of a proinflammatory cytokine from a cell, wherein said HMGB B box biologically active fragment is selected from the group consisting of an HMG1L5 B box fragment, an HMG1L1 B box fragment, an HMG1L4 B box fragment, and an HMGB B box polypeptide fragment of BAC clone RP11-395A23 B box.

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19. A method of determining whether a compound inhibits inflammation, comprising combining the compound with

- (a) a cell that releases a proinflammatory cytokine when exposed to a high mobility group box protein (HMGB) B box or a biologically active fragment thereof; and
- (b) the HMGB B box or biologically active fragment thereof, wherein said HMGB B box is selected from the group consisting of an HMG1L5 B box, an HMG1L1 B box, an HMG1L4 B box, and an HMGB B box polypeptide of BAC clone RP11-395A23;

20 then determining whether the compound inhibits the release of the proinflammatory cytokine from the cell.